

Dr.A.P.PUSHPALATHA, M.Sc., B.Ed.,M.Phil.,PGDCA.,Ph.D

Prof & HOD of Mathematics Department

Velammal College of Engineering and Technology (Autonomous), Madurai

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Educational Qualification:

Degree or Diploma	Name of the Institution	Name of the University	Year of Passing
Ph.D	Madurai Kamaraj University, Madurai	Madurai Kamaraj University, Madurai	2011
PGDCA	Madurai Kamaraj University, Madurai	Madurai Kamaraj University, Madurai	2002
M.Phil	Madurai Kamaraj University, Madurai	Madurai Kamaraj University, Madurai	1998
B.Ed	Madurai Kamaraj University, Madurai	Madurai Kamaraj University, Madurai	1997
M.Sc (Mathematics)	VVV College for Women, Virudhunagar	Madurai Kamaraj University, Madurai	1995
B.Sc (Mathematics)	VVV College for Women, Virudhunagar	Madurai Kamaraj University, Madurai	1993

Experience in Years: 25 years 10 months**Employment History:**

Institute /Organization	Designation/Nature of job	No. of Years	Period	
			From	To
Velammal College of Engineering and Technology, Madurai	Prof and HOD of Maths	-	07.02.2022	Till now
Thiagarajar College of Engineering, Madurai	Associate Professor	8 years 4 months	June 2013	Sept 2021
Thiagarajar College of Engineering, Madurai.	Assistant Professor	3 years 6 months	Jan 2010	June 2013
Thiagarajar College of Engineering, Madurai.	Senior Grade Lecturer	5 years	Dec 2004	Dec 2009
Thiagarajar College of Engineering, Madurai.	Lecturer	5 years	Dec 1999	Nov 2004
NMS Sermathai Vasan College for Women, Madurai	Lecturer	4 years	June 1996	Nov 1999

Interested Research Areas:

Graph Theory , Discrete Mathematics, Theory of Computation and Fuzzy graphs

Scholarships and Awards received

S.No	Name of Award	Awarding Agency	Year
1	Distinguished Award for QC Case study Presentation in 17th convention on Quality Circles in Education	Quality Circle Forum of India, Chennai Chapter, CCQCE 2015	2015
2	Excellent Researcher of 2018	RULA International Awards'18	2018
3	Delivered TEQIP VideoLecture on "Vector Algebra"	State Council for Technical Education.	2010
4	Received ELITE WITH GOLD NPTEL 7 Courses Certificates	NPTEL	From 2018 to 2023
5	Received Certificate for Deep Learning for Beginners course	SKILLUP by Simplilearn	2023

Funded Research Projects: NIL

Funding Agency:

Scheme:

Title:

Sanctioned Amount:

Year:

Principal Investigator(PI):

Co-PI:

Patent rights received: 1**Publications Details:**

Intelligence and Internet of Things Technology through Differential Equations in the Development of Stable and Resilient Smart Grids with High Penetration of Renewable Energy Sources and Management System, 2024

1. Patent Journal Publication Details: NIL**2. International Journal Publication Details:**

S.No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1	G.Jothilakshmi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r)-coloring	International Journal of Mathematics, Computer Sciences and Information Technology	Volume-1, No:2, July- Dec	211-219	2008

2	A.P.Pushpalatha, S.Suganthi, G.Jothilakshmi and V.Swaminathan	Strong non split r- domination number of a graph	Science Direct Electronic Notes in Discrete Mathematics	Volume 33	51-57	2009
3	G.Jothilakshmi, A.P.Pushpalatha, S.Suganthi and V.Swaminathan	Neighbourhood Resolving Sets in Graphs	International Journal of Computing Technology	Volume 1 No 4, March	117-122	2011
4	A.P.Pushpalatha, G.Jothilakshmi, S.Suganthi, R.Sundareswaran and V.Swaminathan	β_0 - graph of a graph	International Journal of Computing Technology Vol 1 No 3 Mar 2011	Volume 1 No3, March	77- 82	2011
5	A.P.Pushpalatha, G.Jothilakshmi, S.Suganthi and V.Swaminathan	β_0 -Excellent Graphs	Int. J. Contemp. Math. Sciences	Volume 6 No-29	1447- 1451	2011
6	G.Jothilakshmi, A.P.Pushpalatha, S.Suganthi and V.Swaminathan	(k,r) - Semi Strong Chromatic Number of a Graph	International Journal of Computer Applications (0975 – 8887)	<i>Volume 21</i> <i>No.2, May</i>	7-10	2011
7	G.Jothilakshmi, A.P.Pushpalatha, S.Suganthi and V.Swaminathan	Forcing Independent Spectrum in Graphs	International Journal of Computer Applications (0975 – 8887)	Volume 21 No.2, May	559-562	2011
8	G.Jothilakshmi, A.P.Pushpalatha, S.Suganthi and V.Swaminathan	(k, r)- Domination in Graphs	Int. J. Contemp. Math. Sciences	Vol. 6, no. 29	1439 – 1446	2011
9	A.P.Pushpalatha, G.Jothilakshmi, S.Suganthi, and V.Swaminathan	β_0 -Excellent Graphs	WSEAS Transactions on Mathematics ISSN:1109-2769	Volume 10 Issue 2 February	65-83	2011
10	A.P.Pushpalatha, G.Jothilakshmi, S.Suganthi, and V.Swaminathan	(k,r)- domination and (k,r)- independence number of a graph	International Journal of Computing Technology	Vol 1 No 2 Mar	40-43	2011

11	S.Suganthi, V.Swaminathan, G.Jothilakshmi And A.P.Pushpalatha	Neighbourhood Resolving sets in graphs – I	J. Math. Comput. Sci. 2 ISSN: 1927-5307	No 4	1012- 1029	2012
12	S.Suganthi, V.Swaminathan, A.P.Pushpalatha And G.Jothilakshmi	Neighbourhood Resolving sets in Graphs – II	AMO - Advanced Modeling and Optimization	Volume 15, Number 1	45-61	2013
13	S.Suganthi, V.Swaminathan, A.P.Pushpalatha And G.Jothilakshmi	Resolving sets in graphs	International Journal of Graph Theory	Volume 1 Issue 2 April	58-71	2013
14	G.Jothilakshmi, A.P.Pushpalatha S.Nasreen Banu And R.Saranya	Neighbourhood graph of a graph	JAC Journal of Science and Management ISSN: 2347 -9868	Volume 2, Number 1, December	36-44	2014
15	G.Jothilakshmi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	Distance r- colouring and Distance r- chromatic Free Fixed and Totally Free Vertices in a Graphs	Global Journal of Pure and Applied Mathematics. ISSN 0973-1768	Volume 10, Number 1	53-62	2014
16	G.Jothilakshmi, A.P.Pushpalatha , G.Suthalakshmi and S.Vallirani	α_0 -Graph of a Graph	International Journal of Engineering and Management Research	Volume 4 Issue 4 August	102-104	2014
17	G.Jothilakshmi, A.P.Pushpalatha , K.Sathya Bama and S.Vallirani	γ_{wc} -excellent graphs	International journal of Applied computational Science and Mathematics (GBS), ISSN 2249, 3042,	Volume 4, Number 2	199-208.	2014
18	S.Suganthi, V.Swaminathan, G.Jothilakshmi And A.P.Pushpalatha	nr-Excellent Graphs	<i>WSEAS TRANSACTIONS on MATHEMATICS E-ISSN:2224- 2880</i>	Volume 13	636-645	2014

19	G.Jothilakshmi, A.P.Pushpalatha , S.Suganthi, G.Suthalakshmi, S.Nasreen Banu And R.Saranya	Strong Domination Excellent graphs	<i>IFRSA</i> International Association of Scientific innovation and Research, IFRSA International Journal Of Applied Mathematics	Vol 2, Issue 1, Feb.	1-6	2014
20	G.Jothilakshmi, A.P.Pushpalatha , G.Suthalakshmi, S.Suganthi and V.Swaminathan	Distance r- coloring and distance r- dominator coloring number of a graph	International journal of Mathematics Trends and Technology, ISSN: 2231-5373	Volume -5 Number 3, January	242-246	2014

21	G. Jothilakshmi , A. P. Pushpalatha S. Suganthi and V. Swaminathan	Some results on the distance r- b-coloring in graphs	TWMS J. App. Eng. Math.	Volume 6, Number 2	315-323	2016
22	G.Jothilakshmi, A.P.Pushpalatha and S.Vallirani	The vertex r- cover r- chromatic number of a graph	SSRG International Journal of Mathematics Trends and Technology (IJMTT)	Special Issue	114-123	2016
23	G.Jothilakshmi, A.P.Pushpalatha , S.Vallirani and G.Suthalakshmi,	0-Excellent graphs	SSRG International Journal of Mathematics Trends and Technology (IJMTT)	Special issue	8-17	2016
24	G.Jothilakshmi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r)- irredundant sets in graphs	Advances and Applications in Discrete Mathematics	Volume 17, No 2	113-124	2016
25	A.P.Pushpalatha and G.Jothilakshmi	nm-domination number of a graph	International Journal of Scientific Research Organization (IJSRO) ISSN: 2456 6942	Volume 1, Issue 5, August	1-16	2017

26	G.Jothilakshmi and A.P.Pushpalatha	r-Strong (r-weak),r-balance, r-regular number of a graph	International Journal of Scientific Research Organization (IJSRO) ISSN: 2456 6942	Volume 1, Issue 5, August	42-44	2017
27	A.P.Pushpalatha , G.Jothilakshmi, T.R.D.Supraja and M.D.Kanishka Devi	The local r-domination number of a graph	UGC Approved journal , Mathematical Sciences International Research Journal	Volume 6, Special Issue	280-293	2017
28	A.P.Pushpalatha , G.Jothilkshmi And S.Nasreen Banu	Neighbourhood graph of Cartesian product for some graphs	Mathematical Sciences International Research IMRF	Volume 7, Special issue 2	161-168	2018
29	A. P. Pushpalatha , G. Jothilakshmi and G.Suthalakshmi	Complementary nil r- domination number of a graph	Journal of Applied Science and Computations	VOLUME 5 - ISSUE 12 -	135-139	2018

30	G.Jothilakshmi, A.P.Pushpalatha and V.Swaminathan	“(k,r) – Strong domination number and (k,r) – dom saturation number in graphs	Taga Journal of Graphic Technology ISSN :1748-0345	VOL. 14,	87-90.	2018
31	G.Jothilakshmi, A.P.Pushpalatha and V.Swaminathan	(k,r) – Point domination in graphs	Taga Journal of Graphic Technology. ISSN :1748-0345	VOL. 14	102-107	2018
32	G.Jothilakshmi, A.P.Pushpalatha and V.Swaminathan	“(k,r) – Strong domination number and (k,r) – dom saturation number in graphs	Taga Journal of Graphic Technology ISSN :1748-0345	VOL. 14,	87-90.	2018
33	A.P.Pushpalatha , G.Jothilakshmi and S.Nasreen Banu	Neighbourhood graph of strong product for some Graphs	Taga Journal of Graphic Technology ISSN :1748-0345	VOL. 14	2912-2917	2018
34	G.Jothilakshmi and A.P.Pushpalatha	“omega-graph of a graph”	Taga Journal of Graphic Technology ISSN :1748-0345	VOL. 14	120-123	2018

35	A.P.Pushpalatha, G.Jothilakshmi, S.Suganthi And V.Swaminathan	Very β_0 - Excellent Graphs	Taga Journal of Graphic Technology ISSN :1748-0345	VOL. 14	144-148	2018
36	A. P.Pushpalatha and G. Jothilakshmi ,	Support r- domination number of a graph	Gradiva Review Journal, ISSN NO : 0363- 8057 http://gradivareview.com/VOL_UME-8-ISSUE-10-2022/	Volume 8, Issue 10	81-93	2022
37	A.P.Pushpalatha and K. Pitchaimani	k- Neighbourhood graph of a graph	Indian Journal of Natural Sciences	Volume14 Issue 78	56963- 56973	June 2023
38	A.P.Pushpalatha, S.Suganthi, Gowri Senthil and M.Sivanandha Saraswathy	First and Second Zagreb Coindices of certain special types of graphs	Semi Conductor Opto electronics ISSN: 1001-5868	Volume 42, Issue 2	1553-1569	2023
39	A.P.Pushpalatha, M.Sivanandha Saraswathy and S.Sarulatha	The Steiner Boundary distance in graphs	Journal of Harbin Engineering University ISSN: 1006-7043	Volume 45, No 1	365-368	2023
40	Manjula G. J., Shaik Khaja Mohiddin, , A. P. Pushpalatha, , Vadali Srinivas, M. Premalatha and Sakthi R	Strategic Decision-Making Enhancement Framework (SDEFramework): Leveraging Neutrosophic Logic and Fuzzy Mathematics for Optimized Outcomes in IT Management and Computational Systems	International Journal of Neutrosophic Science Doi: https://doi.org/10.54216/IJNS.240316	Vol. 24, No. 03	179-189	2024
41	Manjula G. J., N. Anitha, A. P. Pushpalatha, K. Vinaya Laxmi , M. Premal	Optimization of Neutrosophic EOQ Model for Effective Demand Management in Uncertain Environment Using Genetic Optimization	International Journal of Neutrosophic Science Doi: https://doi.org/10.54216/IJNS.240305	Volume 24, No 03	56-64	2024

42	A. P. Pushpalatha , S. Suganthi	Special Graphs And Their Zagreb Indices: A Comparative Study	Journal of Mechanics of Continua and Mathematical Sciences. ISSN (Online) : 2454 -7190 ISSN (Print) 0973-8975	Volume 19, No 4	12-28	2024
43	C. Balakrishna Moorthy , D. Rajani , A. P. Pushpalatha , S. Ramya , A. Selvaraj , Mohit Tiwari	Enhancing Inventory Management through Advanced Technologies and Mathematical Methods: Utilizing Neutrosophic Fuzzy Logic	International Journal of Neutrosophic Science https://doi.org/10.54216/IJNS.240403	Volume 24, Issue 4	50-58	2024

2.

a. International / National Conference Presentation Details:

Sl.No.	Author(s)	Title of the Paper	International / National	Name of the Conference / Date / Venue
1	G.Jothilakshmi, A.P.Pushpalatha , And S.suganthi	Distance chromatically free and fixed points in Graph	National	National conference on Mathematics Computing and Modelling, Allied Publishers Pvt Limited, Chennai, PP: 91-95, Mar 3-4, 2007 , The Gandhigram Rural University, Gandhigram.
2	A.P.Pushpalatha , G.Jothilakshmi, S.Suganthi and Swaminathan	Perfect point set domination number of a graph.	National	National conference on Algebra, Graph Theory and their Applications. Pp-29-32, Dec 5-7, 2007, Manomaniam Sundaranar University, Tirunelveli

3	G.Jothilakshimi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r,t)-chromatic Partition of a graph.	National	National conference on Algebra, Graph Theory and their Applications. Pp- 33-38, Dec 5-7, 2007, Manomaniam Sundaranar University, Tirunelveli
4	G.Jothilakshimi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r)-strong domination and (k,r) –dom saturation number of a graph	National	National Conference on Discrete Mathematics and its Applications, Pp: 92-97, Sep 28 -30, 2007, Thiagarajar college of Engineering, Madurai.
5	G.Jothilakshimi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	Weakly convex (k,r)- domination in graphs	National	National Conference on Discrete Mathematics and its Applications, Pp: 92-97, Sep 28 -30, 2007, Thiagarajar college of Engineering, Madurai
6	A.P.Pushpalatha , G.Jothilakshmi, S.suganthi and V.Swaminathan	Strong non-split r- domination number of a graph	International	International Conference on Graph Theory and its Applications, Department of Mathematics, Amirtha School of Engineering, Coimbatore, Dec 11-13, 2008, Pp: 109-122
7	A.P.Pushpalatha , G.Jothilakshmi, S.suganthi and V.Swaminathan	r-strong r-domination number of a graph	International	International Seminar on Matheamtical and Experimental Physics, PSGR Krishnamal College for Women, Coimbatore, Dec -18 &19,2008. Pp: 14-23
8	G.Jothilakshimi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r)-domatic partition number of a graph	International	International Seminar on Mathematical and Experimental Physics, PSGR Krishnamal College for Women, Coimbatore, Dec -18 &19,2008, Pp:38-45
9	G.Jothilakshimi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r)-semi strong chromatic number of a graph	National	National conference on Fuzzy mathematics, Graph theory and Applications, Mepco Schlenk Engineering College, Sivakasi April 17 &18, 2009.
10	G.Jothilakshimi, A.P.Pushpalatha , S.Suganthi and V.Swaminathan	(k,r)-domination and (k,r)-independent set of a graph	International	International conference on Mathematics and Computer science (ICMCS 2009), Loyola college, Chennai, Jan 5 76, 2009 Pp: 223-225

11	A.P.Pushpalatha, G.Jothilakshmi, S.Suganthi and V.Swaminathan	Distance r- homomorphism	International	International conference on Mathematics and Computer Science (ICMCS 2009), Loyola college, Chennai, Jan 5 76, 2009 Pp: 219-222
12	A.P.Pushpalatha, G.Jothilakshmi, S.suganthi and V.Swaminathan	Split- r- domination number of a graph	National	National conference on Recent trends in Applicable Mathematics for Engineering and Technology, KLN college of Engineering, Madurai, April 2 &3, 2009.Pp: 166-169.
13	G.Jothilakshimi, A.P.Pushpalatha, S.Suganthi, R.Sudalai raj and N.Sankara Narayana Prabhu	The Local r- domination number of a graph	National	National conference on Recent trends in Applicable Mathematics for Engineering and Technology, KLN college of Engineering, Madurai, April 2 &3, 2009.Pp: 115-131.
14	A.P.Pushpalatha, G.Jothilakshmi, S.suganthi and V.Swaminathan	β_0 -graph of a graph	National	National conference on Applied Mathematics and its Applications, Jan 27 &28, 2010, Crescent University, Chennai. Pp: 148- 151
15	A.P.Pushpalatha, G.Jothilakshmi, S.suganthi and V.Swaminathan	Forcing Independent spectrum of a Graph	National	International conference on Mathematics and Computer Science (ICMCS 2010), Loyola college, Chennai, Feb 5 -6, 2010, Pp: 559-562.
16	A.P.Pushpalatha, G.Jothilakshmi And G. Bala Vishnu Priya	nm-domination number of a graph	National	National conference on Recent Trends in Mathematics (NCRTM-2012),Mannar Thirumalai Nayakar College, Madurai, March 16-17,2012
17	A.P.Pushpalatha, G.Jothilakshmi and S.Praveena	ω -graph of a graph	National	National conference on Recent Trends in Mathematics (NCRTM-2012),Mannar Thirumalai Nayakar College, Madurai, March 16-17,2012

18	A.P.Pushpalatha, G.Jothilakshmi And Benazir	Distance r- dominator coloring number of a graph	National	National Conference on Recent Trends in Labeling and Domination in Graphs, E.M.G Yadava Women's College, Madurai, 14 th – 15 th December, 2012
19	G. Jothilakshmi, A.P.Pushpalatha, S.Vallirani	α_0 Excellent Graphs	National	Recent Trends in Coloring of Graphs and Digraphs, Sethupathy Government Arts College, Ramnad, 24 th -25 th August, 2012
20	G. Jothilakshmi, A.P.Pushpalatha, S. Nasreen Banu, Saranya	Neighbourhood Graph of a Graph	National	National Conference on Recent Trends in Labeling and Domination in Graphs, E.M.G Yadava Women's College, Madurai, 14 th – 15 th December, 2012
21	G. Jothilakshmi, A.P.Pushpalatha, S.Vallirani	The vertex r-cover, r- coloring number of a Graph	National	Recent Trends in Coloring of Graphs and Digraphs, Sethupathy Government Arts College, Ramnad, 24 th -25 th August, 2012
22	A.P.Pushpalatha, G.Jothilakshmi and S.Praveena	Omega graph of a Graph	National	Recent Trends in Coloring of Graphs and Digraphs, Sethupathy Government Arts College, Ramnad, 24 th -25 th August, 2012
23	A. P. Pushpalatha , G. Jothilakshmi and G.Suthalakshmi	Complementary nil r- domination number of a graph	International	TNSCST sponsored International Conference on “ Emerging Trends in Mathematical Sciences and Technology, Jayaraj Annapackiam College for Women, Periyakulam, 20 th - 21 st December, 2018

2. Books/Reports/Chapters/General articles etc.

S.No	Title	Author's Name	Publisher	Year of Publication
1	(k,r)-domination and its variations	G.Jothilakshmi, A.P.Pushpalatha, and V.Swaminathan	Lambert Publication	2017
2	N_0 – excellence in graphs	A.P.Pushpalatha, and G.Jothilakshmi	International Multidisciplinary Research Foundation	2017

3	Forcing sets in graphs with respect to domination	G.Jothilakshmi, A.P.Pushpalatha, and V.Swaminathan	Research India Publications	2017
4	Distance r-colouring and distance r-chromatic free, fixed and totally free vertices in a graph	G.Jothilakshmi, A.P.Pushpalatha, and V.Swaminathan	Research India Publications	2017
5	Role of women in modern India	A.P.Pushpalatha, and G.Jothilakshmi	Women Unlimited, Shanlax publications	2018
6	Women and Media's Role in Framing the women in Society	A.P.Pushpalatha, and G.Jothilakshmi	Women Unlimited, Shanlax publications	2018
7	Study of excellence in graphs with respect to various parameters	A.P.Pushpalatha , G.Jothilakshmi,, and V.Swaminathan	Lambert Publication	2019
8	Neighbourhood graph of a graph and its Excellence	G.Jothilakshmi, A.P.Pushpalatha and Nasreen Banu	Lambert Publication	2019

b. Google Scholar report:

https://scholar.google.co.in/scholar?hl=en&as_sdt=0%2C5&q=a.p.pushpalatha&oq=